Marchand (page 197) bases his observations on a study of 23 aneurysms. In only 3 of these cases was it certain that syphilis was present. He recognizes two principal varieties of arterial sclerosis corresponding to the "A" and "B" types of Chiari. The "B" type may, particularly in young persons, be ascribed to syphilis, but cannot be held as specific for this disease, or as a gummatous formation. In his preparation, the giant cells were interpreted as foreign-body giant cells. Further, this indurating form of sclerosis may favor the development of aneurysms but the ordinary form of sclerosis is generally associated with aneurysm.

Abramow (*Virch. Arch.*, 1904, Band clxxviii. p. 406) has found in five out of six aortas from syphilitics, which he has studied, alterations which correspond to Chiari's types of mesaortitis productiva. To decide as to the syphilitic nature of this process he examined during one year all the atheromatous aortas in the material at the "Nicolai" Stadtkrankenhaus of Rostow. From this study he concludes that syphilis in the aorta, as in other organs, may give rise to gummatous processes and ordinary cirrhotic changes, but that only the gummatous aortitis may be looked upon from an anatomical standpoint as specific. The other changes analogous to those described by Chiari cannot be termed specific and may occur in other conditions.

HYGIENE AND PUBLIC HEALTH.

UNDER THE CHARGE OF

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Standards of Ventilation.—In an address before the British Medical Association, DR. J. S. HALDANE (*Public Health*, October, 1904, p. 32) asserts that, contrary to text-book traditions, an excess of 35 volumes over the normal content of 3 volumes of carbon dioxide in 10,000 of air will have practically no effect *per se* on human beings. Experiments conducted with Mr. J. G. Priestly have shown that the percentage of carbon dioxide in the alveolar air in man "is kept constant in each individual with almost astounding precision," and that, "if the inspired air contains 50 volumes per 10,000, the change in the depth of breathing . . . is quite inappreciable to the person breathing." The increase in the proportion of carbon dioxide in the alveolar air "would certainly produce marked discomfort, if it were not so easily got rid of by a very slight increase in the depth of breathing." The deficiency of oxygen in the air of rooms he regards as of equal unimportance, and the same is true of the aqueous vapor, since the relative humidity, except in extremely close rooms and in warm weather, is usually lower inside than outside. The hypothetical volatile organic matters of respired air he regards as probably non-existent, and, therefore, devoid of influence. That they cannot be of a proteid nature, as some have asserted they are, hardly needs argument, since no volatile proteid matters have yet been discovered; and that they cannot be toxic is proved by the fact that injection of large amounts of the condensed aqueous vapor of respired air produces no more effect than that of equal volumes of distilled water. He calls attention to the fact that schoolmasters who spend their working hours in rooms in which the air is very much vitiated by respiration have a much lower comparative mortality figure than lawyers, physicians, and farm laborers, and that their comparative mortality figure for phthisis and other respiratory diseases is even lower in proportion than the general death rate. But schoolmasters are associated with children, who are very little subject to phthisis, which is more a disease of middle age, and hence there is not the danger of infection which comes to those associated in crowded rooms with adult workers. Since the danger of infection by virulent bacilli is much greater in rooms occupied by spitting consumptives, a far higher standard of ventilation is required for such places.

In place of the legal limit of 9 volumes of carbon dioxide in 10,000 of air, fixed several years ago for cotton factories only, where the air needs to be humidified, a departmental committee, consisting of Haldane and Osborn, of the Home Office, recommended, in 1902, that one of 12 volumes for daytime and 20 for night, when gas is burning, be established for workshops generally, in the belief that great improvement would thereby be effected. This recommendation was vigorously objected to, on the ground that the proposed standard was much too lax and would render nugatory all attempts to secure efficient ventilation. Haldane insists, however, that it is impracticable to make no allowance for burning gas, for, although the products of combustion can doubtless be removed by systems of ventilating pipes, such are practically never used in factories and workshops, and would be extremely troublesome and costly; and he can call to mind no gas-lighted factory, however well ventilated, where a standard of 9 volumes can be maintained after dark in winter. An ordinary gas flame consumes five times as much oxygen and produces about three times as much carbon dioxide as an adult man; and hence a maximum standard of 20 volumes of carbon dioxide per 10,000 of air after dark appears to be reasonable. The air of elementary schools appears to be fully twice as bad as that of factories; and he recommends that if a 12-volume standard be enforced in factories, it be enforced also in schools, in spite of the necessary and very considerable expense involved.

[Anybody who has had considerable experience in the examination of school-room air knows that, in spite of all attempts to keep impurities down, the carbon dioxide is commonly far more abundant than Haldane's proposed standard would permit, especially in old buildings. Repeated examination by the writer of the air of a number of old schoolhouses at different seasons of the year yielded averages which more often reached 30 than 12 per 10,000.—C. H.]

Milk and Disease.—*Typhoid Fever.* An outbreak of typhoid fever among factory hands, the cause of which was traced to milk, is described by DR. W. R. STOKES (*Journal of the American Medical Association*, February 25, 1905). The number of persons employed included 1500 girls and women and 400 men. The former were served with a light luncheon, which included a glass of milk, but the latter went out to neighboring places where beer could be procured. The outbreak was confined almost exclusively to the women, of whom there were as many as 200 absent at one time, but the manager believed that many were away from causes other than sickness. The milk supplied came from